

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1-6. (Canceled)

7. (Currently amended) A mucosal adjuvant for inducing both vaccine antigen-specific antibody in blood and vaccine antigen-specific antibody secreted at the mucosal surface, comprising a natural interferon  $\alpha$  as the active ingredient of said mucosal adjuvant and wherein nasal mucosal administration of said mucosal adjuvant is performed at the same time as **administration of** a vaccine antigen **as a composition**, wherein said vaccine antigen comprises a protein or peptide antigen, **wherein the vaccine antigen-specific antibody is secreted at the gastrointestinal mucosal surface.**

8. (Canceled)

9. (Currently amended) The mucosal adjuvant according to claim 7, wherein the amount of the interferon  $\alpha$  **[[used]]** is 0.5 to 5,000,000 IU.

10. (Canceled)

11.-12. (Canceled)

13. (Currently amended) A combined product of a vaccine antigen and mucosal adjuvant for inducing both vaccine antigen-specific antibody in blood and vaccine antigen-specific antibody secreted at the mucosal surface, wherein said mucosal adjuvant comprises a natural interferon  $\alpha$  as the active ingredient and nasal administration of said mucosal adjuvant is performed at the same time as said vaccine antigen, wherein said vaccine antigen comprises a

protein or peptide antigen, **wherein the vaccine antigen-specific antibody is secreted at the gastrointestinal mucosal surface.**

14. (Canceled)

15. (Currently amended) The combined product according to claim 13, wherein the amount of the interferon  $\alpha$  **[[used]]** is 0.5 to 5,000,000 IU.

16.-18. (Canceled)

19. (Currently amended) **A composition comprising a** mucosal adjuvant for inducing both vaccine antigen-specific antibody in blood and vaccine antigen-specific antibody secreted at the mucosal surface, wherein said mucosal adjuvant comprises a natural interferon  $\alpha$  as the active ingredient and wherein said vaccine antigen comprises a protein or peptide antigen in **[[a combined]] said composition, wherein the vaccine antigen-specific antibody is secreted at the gastrointestinal mucosal surface.**

20. (Canceled)

21. (Withdrawn) A mucosal immune response activation method, comprising administration of mucosal adjuvant containing interferon  $\alpha$  as the active ingredient at the same time as or at a different time than the vaccine antigen and by the same administration route as the vaccine antigen to subjects in whom it is necessary to augment immunity by inducing both vaccine antigen-specific antibody in blood and vaccine antigen-specific antibody secreted at the mucosal surface.

22. (Withdrawn) A method of inducing both vaccine antigen-specific antibody in blood and vaccine antigen-specific antibody secreted at the mucosal surface using vaccine antigen and adjuvant of this vaccine antigen, comprising

- (1) mucosal administration of vaccine antigen,
- (2) the use of an interferon  $\alpha$  as the active ingredient of the adjuvant,

(3) administration of said adjuvant at the same time as or at a different time than said vaccine antigen, and

(4) mucosal administration of said adjuvant by the same administration route as said vaccine antigen.

23. (Withdrawn) The method according to claim 22, wherein the interferon  $\alpha$  is selected from natural interferons  $\alpha$  and recombinant interferons  $\alpha$ .

24. (Withdrawn) The method according to claim 23, wherein the amount of interferon  $\alpha$  used is 0.5 to 5,000,000 IU.

25. (Withdrawn) The method according to claim 23, wherein the vaccine antigen is protein or peptide antigen.

26. (Withdrawn) The method according to claim 23, wherein mucosal administration is performed at the same time.

27. (Withdrawn) The method according to claim 26, wherein administration is via the nasal mucous membrane.

28.-30. (Canceled)

31. (Canceled)

32. (Previously presented) The mucosal adjuvant according to claim 7, wherein the antibody in blood is IgG.

33. (Previously presented) The mucosal adjuvant according to claim 7, wherein the antibody secreted at the mucosal surface is IgA.

34. (Canceled)

35. (Previously presented) The combined product according to claim 13, wherein the antibody in blood is IgG.

36. (Previously presented) The combined product according to claim 13, wherein the antibody secreted at the mucosal surface is IgA.

37. (Canceled)

38. (Currently amended) The composition ~~mucosal-adjuvant~~ according to claim 19, wherein the antibody in blood is IgG.

39. (Currently amended) The composition ~~mucosal-adjuvant~~ according to claim 19, wherein the antibody secreted at the mucosal surface is IgA.

40. (Currently amended) The composition ~~mucosal-adjuvant~~ according to claim 19, wherein the ratio of vaccine antigen is 0.01 to 55% w/w of the ~~entire~~ composition.

41. (Currently amended) The composition ~~mucosal-adjuvant~~ according to claim 19, wherein the ratio of interferon  $\alpha$  is 0.01 to 5% w/w of the ~~entire~~ composition.

42. (Currently amended) The composition ~~mucosal-adjuvant~~ according to claim 19, wherein said mucosal adjuvant is encapsulated in a member selected from the group consisting of a liposome, a nanosphere, a microsphere, a biodegradable carrier and a mucoadhesive carrier.

43. (Currently amended) The composition ~~mucosal-adjuvant~~ according to claim 42, wherein said biodegradable carrier is polymeric lactide-glycolide copolymer (PLGA).

44. (Currently amended) The composition ~~mucosal-adjuvant~~ according to claim 42, wherein said mucoadhesive carrier is a mucoadhesive microsphere ~~microspheres~~.